

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial No.:

Group Art Unit:

Inventor: P.S. Spoor

Filed: Concurrently

Title: Free Piston Device With
Time Varying Clearance Seal

INFORMATION DISCLOSURE STATEMENT

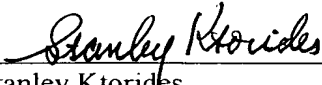
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Sir:

In accordance with 37 CFR 1.51, 1.56 and 1.97 to 1.99, the following is a relevance statement on each citation listed on attached form PTO-1449, and is made of record to assist the Patent & Trademark Office in its examination of this application:

U.S. 4,911,618 – Suganami et al. discloses a cryocompressor having a check valve arranged in a circuit connecting a compression chamber defined by a piston disposed in a cylinder with an annular gap small enough to provide an expected sealing effect to a buffer chamber also defined by the piston in the cylinder, a cross sectional area of the annular gap between the piston and the cylinder being larger on the side of the compression chamber than on the side of the buffer chamber. There is no disclosure of a free piston device which comprises a time varying clearance seal to counteract piston drift and thus this patent neither discloses nor suggests applicant's claimed invention.

Respectfully submitted,



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MARCH 16, 2004
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Form PTO-1449 (Rev. 8-83)		U.S. Department of Commerce		Atty. Docket No. D-21408		Serial No.	
Information Disclosure Citation (Use several sheets if necessary)				Applicant Phillip S. Spoor			
				Filing Date		Group	

U.S. PATENT DOCUMENTS													
Examiner Initial	Document Number								Date	Name	Class	Subclass	Filing Date if Appropriate
		4	9	1	1	6	1	8	3/1990	Suganami et al.	417	439	

FOREIGN PATENT DOCUMENTS														
	Document Number								Date	Country	Class	Subclass	Translation	
													Yes	No

Other Documents (including Author, Title, Date, Pertinent Pages, Etc.)			

Examiner	Date Considered
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* EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.